

## CLAIMS

1. A brake system comprising:
  - a rotatable drum;
  - a band brake surrounding a portion of said drum including an anchor end and an apply end;
  - 5 an anchor member engaging said anchor end including sensor means to provide a reaction signal proportional to the force generated at said anchor end;
  - an apply means for generating an apply force at said apply end to enforce engagement of said brake band and said drum; and
  - 10 control means responsive to said reaction signal to adjust said apply force to a desired apply force.
  
2. The brake system defined in Claim 1 further comprising:
  - speed sensing means for generating a speed signal proportional to a speed of said drum; and
  - said control means responsive to both said reaction signal and said
  - 5 speed signal to adjust said apply force to a desired apply force.
  
3. The brake system defined in Claim 1 further comprising:
  - a force sensing means responsive to said apply force for generating an apply signal proportional to said apply force; and
  - said control means responsive to all of said reaction signal and said
  - 5 speed signal and said apply signal to adjust said apply force to a desired apply force.
  
4. The brake system defined in Claim 1 further wherein:
  - said apply means is a member of a group consisting of a linear actuator means and a torque to thrust means.

5. A method of establishing an actuator force in a brake system having a rotating drum and a brake band, said method comprising the steps of:

- establishing a desired brake torque;
- determining a speed of said drum;
- 5 determining a desired anchor force;
- measuring an actual anchor force at said brake band;
- comparing said desired anchor force and said actual anchor force;
- and
- issuing an actuator control signal to a brake actuator signal to an
- 10 actuator at said brake band to apply an actuator braking force thereto proportional to said brake actuator signal.

6. The method of establishing an actuator force in a brake system defined in Claim 5 further comprising the steps of:

- determining an actual actuator force at said actuator; and
- comparing said actual actuator force with said proportional brake
- 5 actuator force.